REMARKS

This is in response to the currently outstanding non-final Official Action in the above-identified continued prosecution application.

Claims 1-37 were originally presented. Claims 26-37 were elected for further prosecution and Claims 1-27 were cancelled, without prejudice. Claims 38-55 were subsequently added by Amendment. The present Amendment amends Claims 28, 31, 32, 35, 36, 37, 38, 41, 42, 46, 47 and 52. Claims 30 and 40 are canceled, without prejudice. No claims are added. No new matter is added by virtue of the foregoing Amendment. Accordingly, upon the entry of the foregoing Amendment, the claims under active prosecution in this application will be Claims 26-29, 31-39 and 41-55.

The claims as they will stand upon the entry of the foregoing Amendment are set forth in full herein as required by the Rules.

More particularly, in the currently outstanding Official Action, the Examiner has:

1. Acknowledged Applicants' claim for foreign priority under 35 USC 119(a)-(d) or (f), and also confirmed the receipt of the required certified copy of the priority documentation by the United States Patent and Trademark Office.

2. Acknowledged Applicants' Information Disclosure Statement submitted on March 31, 2004 by providing Applicants with a copy of the Form PTO-1449 that accompanied that filing duly signed, dated and initialed by the Examiner in confirmation of consideration of the art listed therein, but **failed** to so acknowledge Applicants' Information Disclosure Statement as submitted on 4 May 2004 – **Appropriate acknowledgement of Applicants' Information Disclosure Statement of 4 May 2004 in response to this communication is respectfully requested**;

3. Indicated that the drawings originally filed with this application on 14 September 2000 have been accepted;

4. Objected to the specification on the basis that the Abstract does not describe the invention as claimed – **By the foregoing Amendment, Applicants have deleted the Abstract and substituted a new Abstract therefore and respectfully submit that the new Abstract appropriately describes the invention as claimed – a decision so holding in response to this communication is respectfully requested;**

5. Advised Applicants that in the event that Claim 51 is found to be allowable that Claim 52 will be objected to under 37 CFR 1.75 – **Applicants respectfully submit that the foregoing Amendment removes the basis of the Examiner's comments concerning Claim 52 in the above regard and respectfully request a decision so holding in response to this communication;**

6. Objected to Claim 52 on the grounds that it ends with a comma, rather than a period – **Applicants respectfully submit that the basis for this objection has been removed by the foregoing Amendment and respectfully request a decision so holding in response to this communication;**

7. After commenting upon Applicants' previous argument, rejected Claims 28-29, 31, 33-39, 41 and 43-47 under 35 USC 102(b) as being anticipated by the "Portable Document Format Reference Manual, Version 1.2";

8. Rejected Claims 30, 40, and 48-55 under 35 USC 103(a) as being unpatentable over the "Portable Document Format Reference Manual, Version 1.2" in view of the Warnock reference (US Patent No.5,634,064; and

9. Rejected Claims 32 and 42 under 35 USC 103(a) as being unpatentable over the Portable Document Format Reference Manual, Version 1.2, in view of Japanese Patent No.5-323941.

No further specific comment regarding items 1–6 above is deemed to be required in these Remarks.

First, with respect to the Portable Document Format, Applicants wish to clarify their understanding of the structure and parameters of the reference for the record. Specifically, it is Applicants' position that each page in the Portable Document Format is stored in the form of a "page object" (i.e., the content of a document is stored on a page-by-page basis). Further, an article bead is one of the elements of the stored data that together composes an article. Further, an article is composed of a plurality of article beads (apparently corresponding to the "intervals" recited in the present application). Each article bead has the following parameters:

B – This parameter specifies an article bead in a page and exists in a page object.

P – This parameter records the number of a page in which an article bead exists.

R – This parameter specifies a position of an article bead in a page by co-ordinate values of four corners of a rectangle surrounding the article bead. The real position of an article bead can be identified by the parameters P and R.

T – This parameter records a thread to which an article bead belongs, and seems to be used for identifying an article in which an article bead exists.

V – This parameter specifies a previous article bead in a page.

N – This parameter specifies the next article bead in a page.

Accordingly, the user can read a whole article by searching article beads specified by the parameters V and N that, in association with the T parameter, are indicative of a scroll path. Hence, Applicants respectfully submit that the Examiner's consideration of the R parameter of the PDF Manual (that specifies the position of an article bead on a page) as being indicative of a scroll path is in error. To clarify this poijt, the claims of this application now have been amended so as to more distinctly the claimed scroll path with the claimed line segments.

More particularly, by the foregoing Amendment, the limitations of Claim 30 have been incorporated into Claim 28, and the limitations of Claim 40 have been incorporated into Claim 38. Claims 30 and 40 have been canceled, without prejudice. As will appear more fully below, Applicants respectfully submit that these amendments clarify the distinctions between the R parameter of the PDF reference and the scroll path of the present invention.

In addition, Claims 31 and 41have been amended in a manner calculated to clarify their meaning. In particular, these claims are relevant to linking between scroll paths. However, since "the scroll display information" may not have heretofore been clearly defined, that term is believed to have been misread by the Examiner as corresponding with an article bead in the PDF reference thereby resulting in an anticipation rejection based upon the parameters V and N as being information for linking article beads.

The subject matters of Claims 31 and 41, however, correspond to links between articles (each article is composed of plural beads) in PDF. Therefore, Claims 31 and 41 now more clearly and distinctly define the linking between scroll paths (each path is composed of plural "intervals"). Further, since the linking between scroll paths may occur within a pre-specified unit as herein claimed, as well as between pre-specified units, claims 31 and 41 have been rephrased to accommodate that alternative.

Claims 37 and 47 are intended to cover the semi-automatic scroll mode described at pages 89, 91 and 92 of the present specification. In this mode, as distinct from the fully automatic mode, a user can operate the scroll display at a desired speed by scrolling only when giving an appropriate instruction (for example while the user is pressing a button). This feature was not adequately described in the previous claims thereby necessitating the above revision of Claims 37 and 47.

The remainder of the foregoing amendments to the claims of this application is for the purpose of clarifying the phraseology of the claims.

At the outset of the currently outstanding Official Action, the Examiner has gone to significant lengths to explain his position as being that as presently claimed Applicants' "pre-specified units" are deemed to be broad enough in scope to include the page objects of the PDF reference which the Examiner recognizes do not include ***all of the display information and scroll display information required to manage and display the pre-specified unit of data***. Further, the Examiner asserts that to the extent that the PDF "R" parameter does not show the claimed "intervals", the Warnock reference supplies the missing disclosure. Applicants are somewhat surprised by the Examiner's foregoing positions because the construction of the language of the claims of this application as including the limitations that the Examiner now asserts are missing has been consistently argued throughout this prosecution without a clear indication until the present Official Action that those elements were not clearly and distinctly claimed in a manner precluding the reading of the PDF reference thereon.

In view of the Examiner's presently stated position, the only independent claims in this application (i.e., Claims 28, 32 and 38) now have been amended so as to clearly, distinctly and unequivocally require that "each pre-specified unit of display data including data to be displayed, and all display information and scroll display control information necessary for the display and/or scroll display of said data to be displayed".

Accordingly, with respect to items 7 – 9 above, Applicants appreciate the Examiner's further detailed analysis of the present claims in light of the cited Portable Document Format Reference Manual. Applicants, however, respectfully request reconsideration of their previous argument in light of the foregoing clarifying amendments. For convenience of reference those arguments will be presented again herein in the context of the claims as amended above.

Applicants respectfully submit that the PDF reference, like the Warnok, et al reference previously cited and distinguished from the claims of this application, is directed to storing an ***entire document or the like*** (on a page-by page basis) in a computer memory as a so-called "PDF (Portable Document Format) document". The difference between the Warnock reference and the PDF Manual reference relied upon in support of the present rejection is as follows. In the Warnock reference the components of an article contained within a document and the so-called "thread" connecting (associating) those components with one another is added (accomplished) **after** the document is stored. On the other hand, in the PDF reference presently relied upon, the definition and association of article components are accomplished **concurrently with** the storage of the document. Applicants respectfully submit that this distinction is insufficient to justify the Examiner's rejections (i.e., to render the currently pending claims unpatentable).

More particularly, despite the Examiner's detailed analysis of the Portable Document Format Reference Manual, the fact remains that present invention stores the display data associated with an entire document or the like, which includes image object data, management information associated with each stored image object data and scroll information associated with each image object data, **in distinct, separately controllable pre-specified units (i.e., files) containing only a portion of all of the display data**. This is different from the so-called dynamic formatting referred to by the Warlock, et al. reference as being unsatisfactory as well as being different from the disclosures of the newly cited Portable Document Format Reference Manual in which it is necessary to store the ***entire document or the like*** in a computer memory as a so-called "PDF (Portable Document Format) document".

The manner in which the Portable Document Format Reference Manual describes the individual elements of that format relative to the way in which it actually works is unfortunate because the foregoing distinctions are not clear. This is believed to be the result of the fact that the PDF Reference Manual attempts to describe the Portable Document Format from the perspective of each of its different levels of complexity separately as a means of aiding program developers and others in the use of its various features.

Applicants respectfully submit, however, that a close reading of the PDF Manual clearly suggests that while the Examiner's factual analysis concerning the "bead" concept of identification of article segments and the page co-ordinate definition of each article segment seems to be supported by the PDF Manual, the Examiner has forgotten (or not noticed) that ***no matter how one approaches the PDF format, it is necessary in the use of each pre-specified unit (page, or article portion in the present context) to refer back to information stored as part of the whole PDF file outside of the so-called "pre-specified unit" (Note: the PDF Reference Manual discusses PDF files as representative of entire documents including a header, a body, a cross-reference table and a trailer (see chapter 5) wherein the body is made up of various indirect objects such as fonts, pages and sampled images, see page 62)***.

Thus, despite other similarities to the present invention, in the article and/or page context, the PDF Reference Manual makes it clear that each selected portion of a so-called "page" that is defined by the so-called "beads" must refer back to the so-called "Contents" parameter of the "page" of which it forms a part. Hence, each article portion must refer back at least to the page information from which it is extracted in order to be appropriately utilized in a scrolling display of an entire article (particularly an entire article having different portions on different pages).

In fact, while it may be possible to create PDF pre-specified units containing separate document pages, there is no provision for saving the defined article segments as pre-specified units (Claim 28) or distinct files (claim 38). Further, while the PDF Manual at certain points seems to broadly suggests that each so-called "page" may be basically separate unto itself as an abstract concept, ***the true, real world fact is that at least part of the display information and associated scroll information for each such page depends upon information created and saved in the body portion of the PDF file outside of the page in question during the course of the creation and saving of an entire PDF format type document.***

In other words, the pre-specified units of the present invention to the extent that they individually represent pages or article portions contain within themselves all of their own display information and scroll display control information. The PDF Document Format, on the other hand, does not truly contemplate that each so-called "page" is to be a pre-specified unit in the sense of the present invention. This is because the display control and scroll display information, for example the required drivers, are embedded in the PDF file and associated with the data to be displayed by higher level operators associated with the data via catalogs that assemble the various objects making up the body of the PDF file to achieve the desired document display. Thus, while the PDF Reference Manual at first reading appears to be discussing the manipulation of documents, pages of documents and article threads running through the documents, a more detailed reading of that manual suggests that the foregoing is but the highest level of explanation of the actual PDF concept.

When reduced to its basics, the PDF concept stores documents in the form of pages separately from at least some of the data contemplated as being necessary for display of the individual data, and separately from all of the other information necessary for the association of that data in the form of appropriate control sequences including the parameters required to achieve the association and control of the display of various combinations of the data as desired. Accordingly, the PDF Manual suggests that the PDF concept might be characterized as including a PDF file containing all of the information making up the document in a database sort of collection (the so-called "body") including various levels of association of that data that can be accessed and displayed or otherwise used. Hence, it is clear that the so-called "threads" connecting the various portions of an article in the PDF Reference Manual are not the same as (or even akin to) the vectors within the article components of the present invention as has been clarified by the above-proposed amendment of Claims 28 and 38.

In support of this interpretation, Applicants respectfully call attention to the fact that at page 27 of the PDF Manual it is indicated that a PDF file contains a PDF document ***and other supporting data***. Further, the PDF Manual states that **in addition to a document a PDF file contains *the version of the PDF specification and information about the location of important structures within the file.*** Further, at page 28 the PDF Manual indicates that the required printer driver consists of a stream of commands ***that are converted into PDF operators which are embedded in the PDF file.*** Also, at page 62 the PDF Manual indicates that the body of a PDF file consists of a sequence of indirect objects representing a document, and that ***those objects represent components of the document such as fonts, pages and sampled images.***

Hence, it is not surprising that in the discussion of optimized PDF files the PDF Manual notes that it is contemplated that ***the pages will share objects and resources.*** It also is not surprising that the various pages are contemplated to have ***common attributes and that those attributes may and will be "inherited" from the preceding page unless otherwise specified.*** **See, pp 77-78; Section 7.4 and pp. 254, 270 and 274.**

Accordingly, as emphasized above and now specifically claimed in each of the independent claims of this application, the PDF Manual does not disclose that the management information and scrolling information associated with each image data object is maintained in association with it in the pre-specified unit (file) within which it is stored, nor does the PDF Manual disclose that a complete formatted document is reproduced using the management information and scrolling information of the various distinct units (files) in linked association with one another. This is clear to anyone who loads a PDF document from the internet. Specifically, the entire document must be loaded before any of it is displayed for use within the PDF document readers commonly available.

Also, as discussed briefly above, Applicants respectfully submit that the Examiner has misunderstood the Applicants' use of the word "intervals" in the claims of this application as applying to parameters akin to the "R" parameter of the PDF Reference Manual which identifies the position of an article bead as defined above. In fact, the claimed "intervals" more closely correspond to the "V" and "N" parameters of the PDF reference Manual. Thus, also as alluded to above, it will be understood that in the present specification the Partial Blocks are identified in Fig. 37 as the "intervals", whereas, the Examiner appears to have thought that the "beads" (article sections) in the PDF Reference Manual correspond to the "intervals" of the present application.

To clarify this point, the claims were previously amended so as to clarify the fact that the "intervals" are meant to refer to portions of the scroll path itself in the present invention contrary to the meaning imposed upon that wording by the Examiner. This clarification now has been enhanced by the incorporation of the limitations of Claim 30 into Claim 28 and by the incorporation of the limitations of Claim 40 into Claim 38.

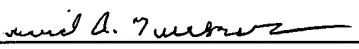
Applicants respectfully submit that this restatement of their previous arguments in the context of the foregoing amendments to the claims of the above-identified application in response to the Examiner's suggestion that the scope of the previously worded claims was too broad to be patentable, presents a complete record upon which the Examiner may reconsider this application and the Applicants' comments with respect thereto in the context in which they were originally intended (i.e., without the distraction of the Examiner's justification of his previous position based upon an expansive reading of the terminology of the claims not contemplated by the Applicants previously in this prosecution).

In view of the foregoing Amendment and Remarks, it is respectfully submitted that all of the claims that will be present in this application upon the entry of the foregoing Amendment are in condition for allowance. Reconsideration and allowance of this application in response to this communication, therefore, is respectfully requested.

Applicants also believe that additional fees beyond those submitted herewith are not required in connection with the consideration of this response to the currently outstanding Official Action. However, if for any reason a fee is required, a fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge and/or credit Deposit Account No. **04-1105**, as necessary, for the correct payment of all fees which may be due in connection with the filing and consideration of this communication.

Respectfully submitted,

Date: September 15, 2004



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